CLAIMS

We claim:

1. A filtering system for filtering particles from a flow of fluid, comprising:

a filter device for removably positioning in a lumen of a pipe carrying the flow of fluid, the filter device having an upstream side for positioning in an upstream direction of the flow of fluid and a downstream side for positioning in a downstream direction of the flow of fluid, the filter device comprising:

a perimeter rim extending along the perimeter edge of the filter device and defining an opening; and

a plurality of filter bars extending across the opening defined by the perimeter rim to form a plurality of slots therebetween;

wherein each of the filter bars of the plurality of filter bars has a transverse cross sectional shape, the transverse cross sectional shape having a transverse width toward the upstream side of the filter device that is relatively wider than the transverse width toward the downstream side of the filter device.

2. The filter system of claim 1 wherein the transverse cross sectional shape of each of the filter bars has a pair of side surfaces, the side surfaces of the cross sectional shape converging toward the downstream side of the filter device and diverging toward the upstream side of the filter device.

3. The filtering system of claim 1 wherein the transverse cross sectional shape of each of the filter bars is substantially triangular.

4. The filtering system of claim 1 wherein the filter device additionally comprises a thread being formed on a perimeter edge of the filter device.

5. The filtering system of claim 1 wherein the filter device has a substantially circular perimeter shape.

6. The filtering system of claim 1 wherein the plurality of filter bars are oriented substantially parallel to each other and the plurality of slots are oriented substantially parallel to each other.

7. The filtering system of claim 1 additionally comprising:

an irrigation sprinkler in fluid communication with the filter device, the irrigation sprinkler having at least one orifice with a diameter;

wherein a width between each of the filter bars of the plurality of filter bars is smaller than the diameter of the orifice of the irrigation sprinkler.

8. The filtering system of claim 4 additionally comprising:

a coupler having a lumen, at least a portion of an interior surface of the lumen being threaded;

wherein the filter device is threaded into the lumen of the coupler.

9. The filter system of claim 1 wherein the transverse cross sectional shape of each of the filter bars has a pair of side surfaces, the side surfaces of the cross sectional shape converging toward the

downstream side of the filter device and diverging toward the upstream side of the filter device;

wherein the transverse cross sectional shape of each of the filter bars is substantially triangular;

wherein the filter device additionally comprises a thread being formed on a perimeter edge of the filter device;

wherein the filter device has a substantially circular perimeter shape;

wherein the plurality of filter bars are oriented substantially parallel to each other and the plurality of slots are oriented substantially parallel to each other;

an irrigation sprinkler being in fluid communication with the filter device, the irrigation sprinkler having at least one orifice with a diameter, wherein a width between each of the filter bars of the plurality of filter bars is smaller than the diameter of the orifice of the irrigation sprinkler; and

a coupler having a lumen, at least a portion of an interior surface of the lumen being threaded, wherein the filter device is threaded into the lumen of the coupler.